Five-Year Impact Analysis of Malaria Vector Control Strategies on Public Health Sector Outlays in South Africa's Eastern Cape Province,

Sipho Mabhaliya[1]**, Tshepo Ditiko**[1,2]**, Mpho Ntombela**[1]**, Lephosi Dlamini**[2,3]

[1] University of KwaZulu-Natal

[2] Stellenbosch University

[3] University of the Witwatersrand

Correspondence: smabhaliya@outlook.com

Author notes

Sipho Mabhaliya is affiliated with University of KwaZulu-Natal and focuses on Medicine research in Africa.
Tshepo Ditiko is affiliated with Stellenbosch University and focuses on Medicine research in Africa.
Mpho Ntombela is affiliated with University of KwaZulu-Natal and focuses on Medicine research in Africa.
Lephosi Dlamini is affiliated with Stellenbosch University and focuses on Medicine research in Africa.

Abstract

Malaria remains a significant public health challenge in South Africa's Eastern Cape Province, where vector control strategies have been implemented to reduce disease transmission. A longitudinal study design was employed, analysing changes in health expenditures related to malaria control initiatives using mixed-effects regression models with robust standard errors to account for temporal correlations. There was a notable reduction in healthcare costs associated with malaria cases among the population exposed to LLINs and IRS, indicating an effective long-term strategy. The study confirms that sustained vector control measures are essential for maintaining cost-effective public health outcomes against malaria. Continuation of current vector control programmes is recommended alongside periodic evaluations to ensure optimal resource allocation. Malaria, Vector Control, Public Health Expenditure, Longitudinal Study, South Africa Treatment effect was estimated with $text\{logit\}(\pi) = beta\,0 + \beta^{\rightarrow} p\,X_i$, and uncertainty reported using confidence-interval based inference.

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

✉ REQUEST FULL PAPER

Email: info@parj.africa

Request your copy of the full paper today!

SUBMIT YOUR RESEARCH

Are you a researcher in Africa? We welcome your submissions!

Join our community of African scholars and share your groundbreaking work.

Submit at: app.parj.africa

Scan to visit app.parj.africa

Open Access Scholarship from PARJ

Empowering African Research | Advancing Global Knowledge